CLAIMS

What is claimed is:

1. A method for supporting a transaction application and a parallel application in a clustered system that utilizes a service level agreement, the method comprising:

monitoring a performance of the clustered system in response to the transaction application, based on the service level agreement and a workload of the clustered system;

analyzing the performance of the clustered system to identify a violation of the service level agreement, if any, by the clustered system; and

in response to the identified violation, dynamically reallocating a computing resource assigned to the parallel application to the transaction application that requires an additional computing resource to meet the service level agreement.

2. The method of Claim 1, wherein the parallel application comprises a numerically intensive application.

3. The method of Claim 1, wherein the transaction application comprises a plurality of discrete events that are less numerically intensive than the parallel application.

4. The method of Claim 1, wherein the clustered system comprises a cluster of computers that process the transaction application and the parallel application.

5. The method of Claim 1, wherein the service level agreement defines an acceptable performance of the clustered system in response to the transaction application.

6. The method of Claim 1, wherein the service level agreement defines an acceptable performance of the clustered system in response to the parallel application.

7. The method of Claim 1, wherein the violation comprises an actual violation of the service level agreement by the performance of the clustered system.

8. The method of Claim 1, further comprising making a prediction of the performance of the clustered system to identify a potential violation of the service level agreement, if any, by the performance of the clustered system.

9. The method of Claim 8, wherein the violation comprises a predicted violation of the service level agreement by the performance of the clustered system.

10. The method of Claim 9, wherein the computing resource comprises an under-utilized computing resource.

11. The method of Claim 1, further comprising provisioning the computing resource to execute the transaction application.

12. The method of Claim 1, further comprising provisioning the computing resource to execute the parallel application.

13. The method of Claim 11, further comprising diverting a portion of the workload to the computing resource.

14. A computer program product having instruction codes for supporting a transaction application and a parallel application in a clustered system that utilizes a service level agreement, the computer program product comprising:

a first set of instruction codes for monitoring a performance of the clustered system in response to the transaction application, based on the service level agreement and a workload of the clustered system;

a second set of instruction codes for analyzing the performance of the clustered system to identify a violation of the service level agreement, if any, by the clustered system; and

a third set of instruction codes, which, in response to the identified violation, dynamically reallocates a computing resource from the parallel application to the transaction application that requires an additional computing resource to meet the service level agreement.

15. The computer program product of Claim 14, wherein the parallel application comprises a numerically intensive application.

16. The computer program product of Claim 14, wherein the transaction application comprises a plurality of small discrete events that are not numerically intensive.

17. The computer program product of Claim 14, wherein the service level agreement defines an acceptable performance of the clustered system in response to the transaction application.

18. The computer program product of Claim 14, wherein the service level agreement defines an acceptable performance of the clustered system in response to the parallel application.

19. The computer program product of Claim 14, wherein the violation comprises an actual violation of the service level agreement by the performance of the clustered system.

20. The computer program product of Claim 14, further comprising a fourth set of instruction codes for making a prediction of the performance of the clustered system to identify a potential violation of the service level agreement, if any, by the performance of the clustered system.

21. The computer program product of Claim 20, wherein the violation comprises a predicted violation of the service level agreement by the performance of the clustered system.

22. The computer program product of Claim 14, further comprising a fifth set of instruction codes for provisioning the computing resource to execute the transaction application.

23. The computer program product of Claim 14, further comprising a sixth set of instruction codes for provisioning the computing resource to execute the parallel application.

24. A system for supporting a transaction application and a parallel application in a clustered system that utilizes a service level agreement, the system comprising:

a server allocation controller monitors a performance of the clustered system in response to the transaction application, based on the service level agreement and a workload of the clustered system;

a service level agreement monitor analyzes the performance of the clustered system to identify a violation of the service level agreement, if any, by the clustered system; and

a server allocation manager which, in response to the identified violation, dynamically reallocates a computing resource from the parallel application to the transaction application that requires an additional computing resource to meet the service level agreement.

25. The system of Claim 24, wherein the parallel application comprises a numerically intensive application.

26. The system of Claim 24, wherein the transaction application comprises a plurality of small discrete events that are not numerically intensive.

27. The system of Claim 24, wherein the clustered system comprises a cluster of computers that process the transaction application and the parallel application.

28. The system of Claim 24, wherein the service level agreement defines an acceptable performance of the clustered system in response to the transaction application.

29. The system of Claim 24, wherein the service level agreement defines an acceptable performance of the clustered system in response to the parallel application.

30. The system of Claim 24, wherein the violation comprises an actual violation of the service level agreement by the performance of the clustered system.

31. A method for supporting a transaction application and a parallel application by a clustered system that implements a service level agreement, the method comprising:

specifying a performance parameter for the service level agreement;

invoking a server allocation utility, wherein the performance parameter is made available to the server allocation utility for allocating computing resources to meet the service level agreement; and

receiving a level of performance by the clustered system within the parameter of the service level agreement for a contracted execution of the transaction application and the parallel application, wherein in response to a violation of the service level agreement, the server allocation utility dynamically reallocates a computing resource that is assigned to the parallel application, to the transaction application that requires an additional computing resource.

32. The method of Claim 31, wherein the violation comprises an actual violation of the service level agreement by the performance of the clustered system.

33. The method of Claim 32, wherein the violation comprises a predicted violation of the service level agreement by the performance of the clustered system.